

## IN THE CLAIMS

Please AMEND the claims as follows: Please cancel claims 150, 154, 161, and 174.  
Please enter the amendments to claims 145, 156, 168, and 172, and enter new claims 175-193.

1-144. (Canceled)

145. (Currently amended) A substantially purified nucleic acid comprising a nucleotide sequence selected from the group consisting of: SEQ ID NO: 34, a fragment of about 250 nucleotides in length of SEQ ID NO: 34, the complement of a nucleotide sequence selected from the group consisting of: SEQ ID NO: 34, and the complement of a fragment of fragments from about 15 to about 250 nucleotides in length of SEQ ID NO: 34.

146-155.(Canceled)

156. (Currently amended) A substantially purified nucleic acid comprising a nucleotide sequence selected from the group consisting of: nucleotides 1 through 5271 of SEQ ID NO: 3, the complement of nucleotides 1 through 5271 of SEQ ID NO: 3, fragments about 250 nucleotides in length of nucleotides 1 through 5271 of SEQ ID NO: 3, and fragments about 250 nucleotides in length of the complement of nucleotides 1 through 5271 of SEQ ID NO: 3. or the complement of a fragment of nucleotides 1 through 5271 of SEQ ID NO: 3, wherein said fragment is from about 15 to about 250 nucleotides in length.

157-165 (Canceled)

166. (Previously Presented) A substantially purified nucleic acid comprising the nucleotide sequence of SEQ ID NO: 34.

167. (Previously Presented) A substantially purified nucleic acid comprising the complement of the nucleotide sequence of SEQ ID NO: 34.

168. (Currently amended) A cell having an introduced nucleic acid, wherein said introduced nucleic acid comprises a nucleotide sequence selected from the group consisting of: SEQ ID NO: 34, ~~the and its~~ complement of SEQ ID NO: 34, a fragment of about 250 nucleotides in length of SEQ ID NO: 34, the complement of SEQ ID NO: 34, and the complement of a fragment of about 250 nucleotides in length of SEQ ID NO: 34.

169. (Previously presented) The cell of claim 168, wherein said introduced nucleic acid is present in a vector.

170. (Previously presented) The cell of claim 169, wherein said vector is a plasmid vector.

171. (Previously presented) The cell of claim 169, wherein said introduced nucleic acid further comprises a TIGR protein coding sequence.

172. (Currently amended) A vector comprising a nucleic acid, wherein said nucleic acid comprises a nucleotide sequence selected from the group consisting of: SEQ ID NO: 34, ~~the and its~~ complement of SEQ ID NO: 34, a fragment of about 250 nucleotides in length of SEQ ID NO: 34, the complement of SEQ ID NO: 34, and the complement of a fragment of about 250 nucleotides in length of SEQ ID NO: 34.

173. (Previously presented) The vector of claim 172, wherein said vector is a plasmid vector.

174. (Canceled)

175. (New) The substantially purified nucleic acid of claim 145, wherein said nucleic acid comprises the nucleotide sequence of SEQ ID NO: 34, or a fragment of about 250 nucleotides in length of SEQ ID NO: 34.

176. (New) The substantially purified nucleic acid of claim 175, wherein said nucleic acid comprises the nucleotide sequence of SEQ ID NO: 34.

177. (New) The substantially purified nucleic acid of claim 176, wherein said introduced nucleic acid further comprises a TIGR protein coding sequence.

178. (New) The substantially purified nucleic acid of claim 175, wherein said nucleic acid comprises a fragment of about 250 nucleotides in length of SEQ ID NO: 34.

179. (New) The substantially purified nucleic acid of claim 145, wherein said nucleic acid comprises the complement of the nucleotide sequence of SEQ ID NO: 34, or a fragment of about 250 nucleotides in length of the complement of SEQ ID NO: 34.

180. (New) The substantially purified nucleic acid of claim 179, wherein said nucleic acid comprises the complement of the nucleotide sequence of SEQ ID NO: 34.

181. (New) The substantially purified nucleic acid of claim 179, wherein said nucleic acid comprises the complement of a fragment of about 250 nucleotides in length of SEQ ID NO: 34.

182. (New) The substantially purified nucleic acid of claim 156, wherein said nucleic acid comprises the nucleotide sequence of nucleotides 1 through 5271 of SEQ ID NO: 3 or a, fragments about 250 nucleotides in length of nucleotides 1 through 5271 of SEQ ID NO: 3.

183. (New) The substantially purified nucleic acid of claim 182, wherein said nucleic acid comprises the nucleotide sequence of nucleotides 1 through 5271 of SEQ ID NO: 3.

184. (New) The substantially purified nucleic acid of claim 183, wherein said introduced nucleic acid further comprises a TIGR protein coding sequence.

185. (New) The substantially purified nucleic acid of claim 182, wherein said nucleic acid comprises a fragment of about 250 nucleotides in length of SEQ ID NO: 34.

186. (New) The substantially purified nucleic acid of claim 156, wherein said nucleic acid comprises the complement of the nucleotide sequence of nucleotides 1 through 5271 of SEQ ID NO: 3 or a, fragments about 250 nucleotides in length of nucleotides 1 through 5271 of SEQ ID NO: 3..

187. (New) The substantially purified nucleic acid of claim 186, wherein said nucleic acid comprises the complement the nucleotide sequence of nucleotides 1 through 5271 of SEQ ID NO: 3.

188. (New) The substantially purified nucleic acid of claim 186, wherein said nucleic acid comprises the complement of a fragment of the nucleotide sequence of nucleotides 1 through 5271 of SEQ ID NO: 3.

189. (New) The cell of claim 168, wherein said cell is a mammalian cell.

190. (New) The cell of claim 168, wherein said cell is a bacterial cell.

191. (New) The vector of claim 172, wherein said nucleic acid comprises wherein said nucleic acid comprises the nucleotide sequence of SEQ ID NO: 34, or a fragment of about 250 nucleotides in length of SEQ ID NO: 34.

192. (New) The substantially purified nucleic acid of claim 191, wherein said nucleic acid comprises the nucleotide sequence of SEQ ID NO: 34.

193. (New) The substantially purified nucleic acid of claim of claim 192, wherein said introduced nucleic acid further comprises a TIGR protein coding sequence.